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F.1.2 M/035/002

OCT 28 1994

Frederick D. Fox
Director, Environmental Affairs

Kennecott

October 25, 1994

Mr. Lynn Kunzler
State of Utah Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
Salt Lake City, UT 84180-1203

Subject: Bingham Canyon Mine Biosolids Application

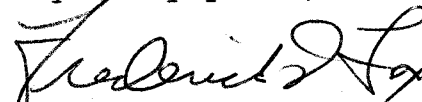
Dear Mr. Kunzler:

Please be advised that Kennecott Utah Copper (KUC) has slightly modified the composition/treatment of the test plots for the above referenced project. The depth of sewage sludge application has been modified from 1" to 0.7" and from 2" to 1.67".

This modification will allow KUC to more accurately measure the sludge application as 0.7" and 1.67" corresponding to 10 cf and 20 cf of sludge per plot respectively. This modification will have no measurable effect on the environment.

Enclosed for your information is a table listing the revised composition/treatment for each test plot. If you have any questions or comments please contact Jon Cherry at 569-6208.

Very truly yours,


Frederick D. Fox

FDF/JCC/jcc

Enclosure

0025

KENNECOTT UTAH COPPER CORPORATION
APPLICATION OF MUNICIPAL SEWAGE BIOSOLIDS
BINGHAM CANYON MINE WASTE ROCK DUMPS
5816 WASTE ROCK DUMP SLOPE TEST PLOTS

Initially municipal sewage biosolids will be applied to fifteen test plots, each 16 feet wide by 50 feet long(800 s.f.). These will be constructed near the toe of the north end of the 5816 Eastside Waste Rock Mine Dump. These test plots replace the 31 test plots, 10 feet wide by 21 feet long, described in the application and shown on Dwg. No. 451-T-1218.

The test plots will be prepared in the waste rock and will be located within the Eastside Collection System which intercepts all water coming from the dumps. The overall dimensions of the test plot area are 65 feet wide by 330 feet long, approximately 0.5 acre.

The construction of the test plots and the application of municipal sewage biosolids is planned for late September, October and November, 1994.

The composition of and treatment of each of the test plots is described below.

TEST PLOT

COMPOSITION/TREATMENT

No. 1	Control. Waste rock, ripped 12-15" deep, disced.
No. 2	Waste rock, 0.7"(10cf) municipal sewage sludge, ripped 12-15" deep, disced.
No. 3	Waste rock, 1.67"(20cf) sludge, ripped 12-15", disced.
No. 4	Control. Waste rock, 6" native soil, ripped 12-15", disced.
No. 5	Waste rock, 6" local soils(topsoil, clay, alluvium), 0.7"(10cf) sludge, ripped 12-15", disced.
No. 6	Waste rock, 6" native soil, 1.67"(20cf) sludge, ripped 12-15", disced.
No. 7	Control. Waste rock, 6" native soil, ripped 12-15", 6" soil, ripped 12-15", disced.
No. 8	Waste rock, 6" native soil, ripped 12-15", 6" soil, 0.7"(10cf) sludge, ripped 12-15", disced.

(Revised 10/24/94)

- No. 9 Waste rock, 6" native soil, ripped 12-15", 6" soil, 1.67"(20cf) sludge, ripped 12-15", disced.
- No.10 Control. Waste rock, 6" sandy tailings, ripped 12-15", disced.
- No.11 Waste rock, 6" sandy tailings, 1"(10cf) sludge, ripped 12-15", disced.
- No.12 Waste rock, 6" sandy tailings, 2"(20cf) sludge, ripped 12-15", disced.
- No.13 Control. Waste rock, 6" sandy tailings, ripped 12-15", 6" sandy tailings, ripped 12-15", disced.
- No.14 Waste rock, 6" sandy tailings, ripped 12-15", 6" sandy tailings, 1"(10cf) sludge, ripped 12-15", disced.
- No.15 Waste rock, 6" sandy tailings, ripped 12-15", 6" sandy tailings, 2"(20cf) sludge, ripped 12-15", disced.

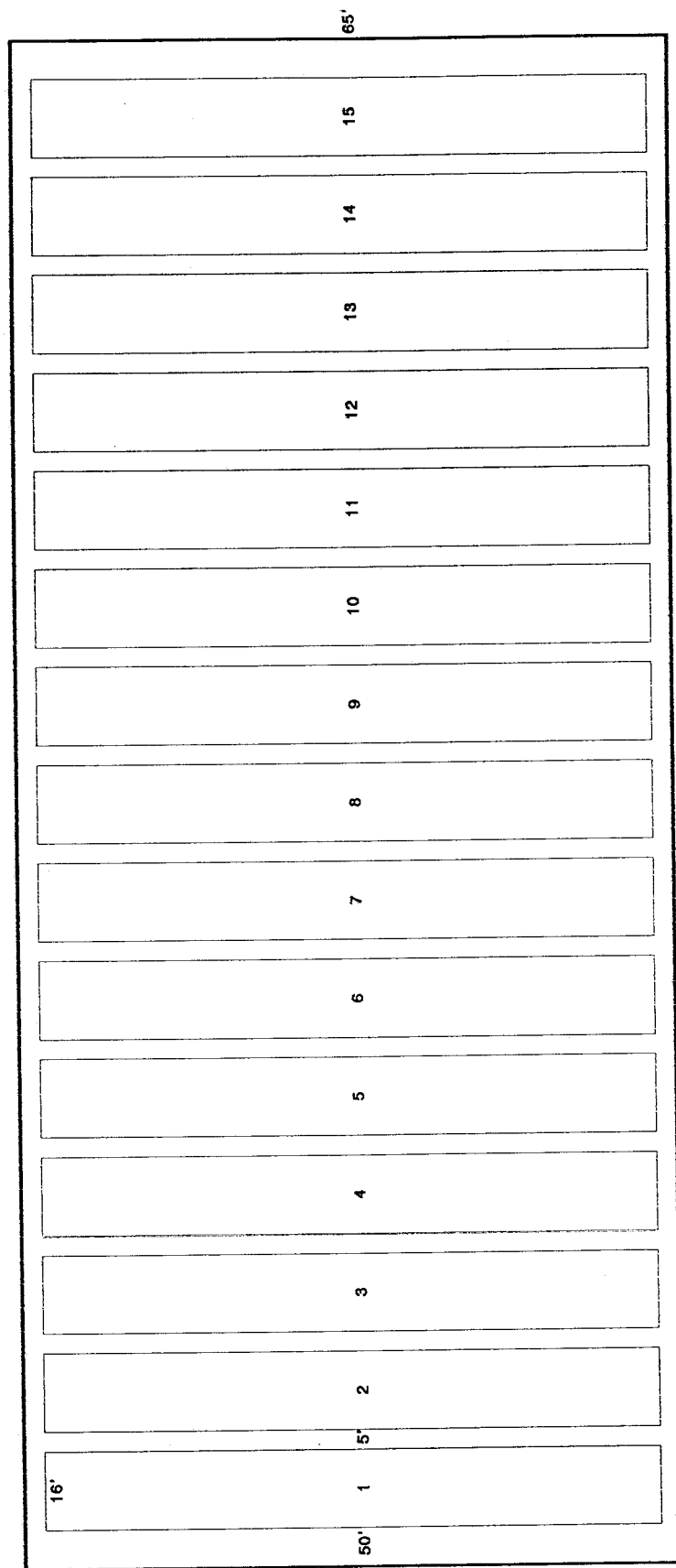
Local soils and sandy tailings will be used in various combinations within a plot or plots other than those listed above. The soil compositions given are generic examples. The amount of sewage biosolids applied will not exceed the 35 Tons/Acre approved by the EPA.

SLUDGE APPLICATION RATES ON 800 S.F. PLOT:

- 1. 0.70" WET(10cf) = 3,750# WET @ 18% SOLIDS = 642.5# DRY = 17.5 DRY TONS/ACRE.
- 2. 1.67" WET(20CF) = 7,140# WET @ 18% SOLIDS = 1,285# DRY = 35.0 DRY TONS/ ACRE.

Additional test plots will be developed in the future in waste rock areas described in the application. Information will be submitted for any new test areas prior to biosolids application.

KENNECOTT UTAH COPPER CORPORATION
 APPLICATION OF MUNICIPAL SEWAGE BIOSOLIDS
 BINGHAM CANYON MINE WASTE ROCK DUMPS
 NORTH END 5816 EASTSIDE WASTE ROCK DUMP
 TEST PLOT LAYOUT



Not To Scale

All test plots are located on waste rock and are within the closed Eastside Collection System.

Total Area=0.5 Acre Each plot is 16'x50'=800 s.f.

9/94